

# **BASF Group 2018** at a glance

# **Key data**

		2018	2017	+/-
Sales <sup>1</sup>	million €	62,675	61,223	2.4%
EBITDA before special items <sup>1</sup>	million €	9,481	10,738	(11.7%)
EBITDA <sup>1</sup>	million €	9,166	10,765	(14.9%)
EBIT before special items <sup>1</sup>	million €	6,353	7,645	(16.9%)
EBIT <sup>1</sup>	million €	6,033	7,587	(20.5%)
EBIT after cost of capital <sup>1</sup>	million €	825	2,902	(71.6%)
Net income	million €	4,707	6,078	(22.6%)
Earnings per share	€	5.12	6.62	(22.7%)
Assets	million €	86,556	78,768	9.9%
Investments including acquisitions <sup>2</sup>	million €	10,735	4,364	146.0%

	2018	2017	+/-
Employees at year-end	122,404	115,490	6.0%
Personnel expenses million €	10,659	10,610	0.5%
Research and development expenses¹ million €	2,028	1,843	10.0%
Greenhouse gas million metric tons emissions of CO <sub>2</sub> equivalents	21.8	22.6	(3.5%)
Energy efficiency in kilogram of sales production processes product/MWh	602	625	(3.7%)
Investments in environmental protection million €	277	234	18.4%
Number of on-site sustainability audits of raw material suppliers	100	120	(16.7%)

Figures for 2017 were restated with the presentation of the oil and gas activities as discontinued operations.
 For more information, see basf.com/report
 Additions to intangible assets and property, plant and equipment

# Segment data



# Chemicals

special items

**2018** | 16,501 **2017** | 16,331 **2018** 





#### **Performance Products**

**2018** | 15,812 **2017** | 16,217

**2018** | 1,376 ■ **2017** | 1,416 ■



### **Functional Materials & Solutions**

**2018** | 21,435 | **2017** | 20,745 |

**2018** | 1,307 **2017** | 1,617 **3** 





### **Agricultural Solutions**

**2018** | 6,156 **E 2017** | 5,696 **E 2018** | 734 **L 2017** | 1,033 **L** 

← Cover photo: Children from Turbhe Store, School No. 22 are enjoying safe drinking water from the Water ATM, launched by BASF in collaboration with Navi Mumbai Municipal Corporation.

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# **About this Report**

The "BASF in India – Report" is published annually as a concise document about the performance of our activities across the three dimensions of sustainability – economy, environment, and society – in India. The reporting period for this publication is the calendar year 2018. This report also carries an overview of BASF Group along with its financial performance, prepared in accordance with the requirements of the International Financial Reporting Standards (IFRS), and, where applicable, the German Commercial Code as well as the German Accounting Standards (GAS). The emissions, waste, energy and water use of fully consolidated joint ventures are reported on a proportional basis, while those accounted according to the equity method are not included. However, work-related accidents at all sites of BASF Group and its subsidiaries as well as joint operations and joint ventures in which we have sufficient authority in terms of safety management, are compiled regardless of our stake, and reported in full. The employee numbers refer to employees within the BASF Group scope of consolidation as of December 31, 2018.

# The BASF Group

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The approximately 122,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Until December 31, 2018, our portfolio was arranged into four segments: Chemicals, Performance Products, Functional Materials & Solutions and Agricultural Solutions. Since January 1, 2019, BASF's activities have been grouped into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions.

## Organization of the BASF Group until December 31, 2018

- Twelve divisions grouped into four segments
- Regional divisions, functional units and corporate and research units support our business

Until December 31, 2018, our 12 divisions' were grouped into four segments based on their business models: Chemicals, Performance Products, Functional Materials & Solutions and Agricultural Solutions. On September 27, 2018 BASF and LetterOne signed a definitive agreement to merge their oil and gas businesses in a joint venture. Since the agreement was signed, we have no longer reported on BASF's oil and gas business as a separate Oil & Gas segment. Following the approval of all relevant authorities, BASF and LetterOne completed the merger of Wintershall and DEA on May 1, 2019. The new joint venture operates under the name Wintershall Dea. Until closing, its earnings were presented as a separate item, income after taxes from discontinued operations. In the Agricultural Solutions segment, we renamed the division from Crop Protection to Agricultural Solutions after the acquisition of significant businesses from Bayer was closed in August 2018, especially for seeds.

Our divisions bear operational responsibility and are organized according to sectors or products. They manage our 54 global and regional business units and develop strategies for the 86 strategic business units.<sup>1</sup>

Our regional units are responsible for optimizing local infrastructure, and contribute to tapping our market potential. For financial reporting purposes, we organize the regional divisions into four regions: Europe; North America; Asia Pacific; South America, Africa, Middle East.

Seven functional units and eight corporate units support the BASF Group's business activities. The functional and corporate units provide services in areas such as finance, human resources, engineering and site management, environmental protection, health and safety, investor relations, and communications. Our global research units safeguard our innovative capacity and competitiveness.

Business processes such as the procurement of raw materials and services, production and transport to customers are the shared responsibility of the divisions and the functional units.

#### New organization of the BASF Group as of January 1, 2019

As of January 1, 2019, we have 12 divisions grouped into six segments as follows:

- Chemicals: Petrochemicals and Intermediates
- Materials: Performance Materials and Monomers
- Industrial Solutions: Dispersions & Pigments and Performance Chemicals
- Surface Technologies: Catalysts, Coatings and Construction Chemicals
- Nutrition & Care: Care Chemicals and Nutrition & Health
- Agricultural Solutions: Agricultural Solutions

We are considering the possibility of merging our construction chemicals business with a strong partner, as well as the option of divesting this business. The outcome of this review is open. The Construction Chemicals division will be reported under the Surface Technologies segment until signing of a transaction agreement.

BASF's new segment structure will allow a more differentiated steering of our businesses according to their market-specific competitive environment. It will increase transparency regarding the results of our segments and divisions and highlight the importance of the Verbund and value chains to our business success. BASF aims to clearly position its businesses against their relevant competitors and establish a high-performance organization to enable BASF to be successful in an increasingly competitive market environment.

The **Chemicals** segment will remain the cornerstone of our Verbund structure. It supplies the other segments with basic chemicals and intermediates, contributing to the organic growth of our key value chains. Alongside internal accounts, our customers include the chemical and plastics industries. We aim to increase our competitiveness through technological leadership and operational excellence.

The Materials segment's portfolio comprises advanced materials and their precursors for new applications and systems. These include isocyanates and polyamides as well as inorganic basic products and specialties for the plastics and plastics processing industries. We aim to grow organically through differentiation via specific technological expertise, industry know-how and customer proximity to maximize value in the isocyanate and polyamide value chains.

The **Industrial Solutions** segment develops and markets ingredients and additives for industrial applications such as polymer dispersions, pigments, resins, electronic materials, antioxidants and admixtures. We aim to drive organic growth in key industries such as automotive, plastics or electronics and expand our position in value-enhancing ingredients and solutions by leveraging our comprehensive industry expertise and application know-how.

The **Surface Technologies** segment comprises our businesses that offer chemical solutions on and for surfaces. Its portfolio includes coatings, rust protection products, catalysts and battery materials for the automotive and chemical industries. The aim is to drive organic growth by leveraging our portfolio of technologies and know-how, and to establish BASF as a leading and innovative provider of battery materials as well.

In the **Nutrition & Care** segment, we strive to expand our position as a leading provider of nutrition and care ingredients for consumer products in the area of nutrition, home and personal care. Customers include food and feed producers as well as the pharmaceutical, cosmetics, detergent and cleaner industries. We aim to enhance and broaden our product and technology portfolio. Our goal is to drive organic growth by focusing on emerging markets, new business models and sustainability trends in consumer markets, supported by targeted acquisitions.

The **Agricultural Solutions** segment aims to further strengthen our market position as an integrated provider of crop protection products and seeds. Its portfolio comprises fungicides, herbicides, insecticides and biological crop protection products, as well as seeds and seed treatment products. We also offer farmers digital solutions combined with practical advice. Our main focus is on innovation-driven organic growth, targeted portfolio expansion as well as leveraging synergies from the acquired businesses.

In addition, BASF will embed business-critical parts of its functional units – such as engineering services, procurement and logistics – into the divisions to bring its employees closer to its customers and improve customer-specific agility. We will create leaner structures in our functional units, research and development and in governance functions.

#### Sites and Verbund

- Six Verbund sites with intelligent plant networking
- 355 additional production sites worldwide

BASF has companies in more than 90 countries. We operate six Verbund sites and 355 additional production sites worldwide. Our Verbund site in Ludwigshafen, Germany, is the world's largest chemical complex owned by a single company that was developed as an integrated network. This was where the Verbund principle was originally established and continuously optimized before being implemented at additional sites.

The Verbund system is one of BASF's great strengths. We add value by using our resources efficiently. The Production Verbund intelligently links production units and their energy supply so that, for example, the waste heat of one plant provides energy to others. Furthermore, one facility's by-products can serve as feedstock elsewhere. This not only saves us raw materials and energy, it also avoids emissions, lowers logistics costs and leverages synergies

We also make use of the intelligent Verbund principle for more than production, applying it for technologies, the market and digitalization as well. Expert knowledge is pooled in our global research platforms.

#### Procurement and sales markets

- Over 90,000 customers; broad customer portfolio
- More than 70,000 suppliers

BASF supplies products and services to over 90,000 customers¹ from various sectors in almost every country in the world. Our customer portfolio ranges from major global customers and medium-sized businesses to end consumers.

We work with over 70,000 Tier 1 suppliers from different sectors worldwide. They supply us with important raw materials, chemicals, investment goods and consumables, and perform a range of services. Some of our most important raw materials are naphtha, natural gas, methanol, ammonia and benzene.

#### **Business and competitive environment**

BASF's global presence means that it operates in the context of local, regional and global developments and is bound by various conditions. These include:

- Global economic environment
- Legal and political requirements (such as European Union regulations)
- International trade agreements
- Industry standards
- Environmental agreements (such as the E.U. Emissions Trading System)
- Social aspects (such as the U.N. Universal Declaration of Human Rights)

BASF holds one of the top three market positions in around 75% of the business areas in which it is active. Our most important global competitors include Arkema, Clariant, Covestro, DowDuPont, DSM, Evonik, Formosa Plastics, Huntsman, Lanxess, SABIC, Sinopec, Solvay, Wanhua and many hundreds of local and regional competitors. We expect competitors from Asia and the Middle East in particular to gain increasing significance in the years ahead.

# Corporate legal structure

As the publicly traded parent company, BASF SE takes a central position: Directly or indirectly, it holds the shares in the companies belonging to the BASF Group, and is also the largest operating company. The majority of Group companies cover a broad spectrum of our business. In the BASF Group Consolidated Financial Statements, 323 companies including BASF SE are fully consolidated. We consolidate eight joint operations on a proportional basis, and account for 35 companies using the equity method.

<sup>1</sup> The method used to calculate customers in the previous year has been adjusted to "sold-to" parties of our consolidated companies. The updated figure for 2017 is over 80,000 customers.

# **Corporate Strategy**

At BASF, we are passionate about chemistry and our customers. Thanks to our expertise, our innovative and entrepreneurial spirit, and the power of our Verbund integration, our innovations have decisively contributed to changing the world we live in for the better for more than 150 years. To be the world's leading chemical company for our customers, we will grow profitably and add value to society. This is how we create chemistry for a sustainable future.

Today, the world is changing more rapidly than ever before, driven by demographic change and new digital technologies. Our customers in different industries and regions face diverse social and environmental challenges due to limited natural resources and increasing consumer demands. Chemistry is key to solving many of these challenges. By combining our unique expertise with our customers' competence, we will jointly develop profitable, innovative and responsible solutions for these global trends.

Our purpose reflects what we do and why we do it: We create chemistry for a sustainable future.

We pursue this purpose with our corporate strategy, which was updated in 2018. We want to contribute to a world that provides a viable future with enhanced quality of life for everyone. This is why we offer products and solutions that make the best use of available resources.

Our aspiration is to be the world's leading chemical company. With our updated corporate strategy, which was announced in November 2018, we are targeting profitable growth. We aim to grow organically and thus will strengthen our customer focus. The Asian market plays an important role in our growth strategy. With a share of more than 40%, China is already the largest chemical market and drives the growth of global chemical production. By 2030, China's share will increase to nearly 50%, and we want to participate in this growth. To drive forward our growth in this dynamic market, we plan to build an integrated Verbund site in Zhanjiang in the southern Chinese province of Guangdong. We also want to expand our existing joint venture with Sinopec in Nanjing.

As part of our aspiration to be the world's leading chemical company for our customers, we want to strengthen our passion for customers throughout the entire organization. We want to grow profitably and create value for society. To achieve this, we have set ourselves ambitious financial and nonfinancial targets.

# New targets from 2019 onward

Business success tomorrow means creating value for the environment, society and business. We have set ourselves new financial and non-financial targets so that our customers, investors, employees and other stakeholders can track our progress.

We want to grow faster than the market and thus be economically successful and profitable. Furthermore, we want to provide answers to the most pressing challenges of our time. To combat climate change and global warming, we have committed ourselves to growing production volumes without adding further  $\mathrm{CO_2}$  emissions until 2030. This means we will decouple greenhouse gas emissions from organic growth. We have also defined targets for a sustainable product portfolio, responsible procurement and engaged employees. Safety for people and the environment, inclusion of diversity and water management will remain a top priority.

The new targets apply from 2019 onward and replace our previous goals. In this way, we want to steer our business into a sustainable future and, at the same time, contribute to the implementation of the United Nations' Sustainable Development Goals (SDGs).

#### Our strategic action areas

To reach our goals and be the leading company in the chemical industry for our customers, we want to strengthen our performance in innovation and in operations as the leading chemical producer and plant operator, leverage digital ways of working across the entire company, and integrate sustainability more deeply into our business decisions. We want to strengthen our passion for our customers in all employees. We aim to strengthen our portfolio and further develop our organization to better meet customer needs using the power of our Verbund integration. We have defined six strategic action areas through which we will sharpen our customer focus. <sup>1</sup>



#### Innovation

Our ambition is to be the most attractive partner for our customers whenever they are confronted with challenges that can be approached with chemistry. Our research and development competences are unique in the chemical industry. We aim to build on and leverage our position as a leading innovator to jointly develop innovations for our customers. We will design our innovation chain to be as seamless as possible so that we can bring products to the market more quickly. This means fostering a higher level of excellence throughout the entire innovation process, starting from the lab all the way to the customer.

<sup>1</sup> We defined six strategic action areas in our updated corporate strategy, which was announced in November 2018. They build on the four strategic principles of the "We create chemistry" strategy – we add value as one company; we innovate to make our customers more successful; we drive sustainable solutions; we form the best team – according to global trends and challenges as well as their implications for BASF.

# New targets from 2019 onward

# Grow sales volumes faster than

**Financial targets** 

global chemical production every year

Increase EBITDA before special items by 3% to 5% per year

Achieve a return on capital employed (ROCE)1 considerably above the cost of capital percentage every year

Increase the dividend per share every year based on a strong free cash flow

#### **Nonfinancial targets**

Grow CO<sub>2</sub>-neutrally until 2030

Achieve **€22** billion in Accelerator

sales<sup>2</sup> by 2025

Cover 90% of our relevant spend3 with sustainability evaluations by 2025, and have 80% of our suppliers improve their sustainability performance upon re-evaluation

More than 80% of our employees feel that at BASF, they can thrive and perform at their best

#### **Existing nonfinancial targets**

Reduce the worldwide lost-time **injury rate** per 200,000 working hours to **≤0.1** by 2025

Reduce worldwide process safety incidents per 200,000 working hours to **≤0.1** by 2025

ment at all production sites in water

- Return on capital employed (ROCE) is a measure of the profitability of our operations. We calculate this indicator as the EBIT generated by the segments as a percentage of the average cost of capital basis.
   Accelerator products are products that make a substantial sustainability contribution in the value chain.
   We understand relevant spend as procurement volumes with suppliers defined as relevant.

#### Sustainability

We are successful in the long term when our products, solutions and technologies add value to the environment, society and the economy. We want to be a thought leader in sustainability and increase the relevance of sustainability in our decision-making processes and business models. This secures the long-term success of our company, creates business opportunities and establishes us as a key partner supporting our customers.

## **Operations**

We are committed to running our production safely, efficiently and reliably so that we can deliver products to our customers on spec and on time. We aim to further improve the reliability and availability of our plants, as well as our agility. Above and beyond this, continuous process improvements and effective debottlenecking of our existing asset base are paramount to ensure our competitiveness.

#### Digitalization

We want to make digitalization an integral part of BASF's business. This will create additional value for our customers, grow our business and improve efficiency. By promoting comprehensive digital skills among our future leaders and our entire workforce, we will ensure that the necessary resources are available.

#### **Portfolio**

We will sharpen our portfolio and focus our capital allocation more towards growing business areas. We will focus primarily on organic growth through capital expenditures and innovation, but also make targeted acquisitions where this makes strategic sense and creates value. The new segment structure will create a higher transparency regarding the steering of our businesses, the importance of value chains and the role of our Verbund. The physical, technological, market and digital integration of the Verbund continues to be at the core of our portfolio and our unique strength.

#### **Employees**

We aim to clearly position each business against its relevant competitors and establish a high-performance organization to enable us to be successful in an increasingly competitive market environment. We will adapt our business models and organizational structures so that each business unit can optimally serve its market segment. Our people are what will make the implementation of our updated strategy successful. We rely on the engagement of our employees and give them the tools and skills necessary to be able to offer our customers differentiated and customized products and services.

# Corporate values

guide our conduct and actions

Creative: We make great products and solutions for our customers. This is why we embrace bold ideas and give them space to grow. We act with optimism and inspire one another.

**Open:** We value diversity, in people, opinions and experience. This is why we foster feedback based on honesty, respect and mutual trust. We learn from our setbacks.

**Responsible:** We value the health and safety of people above all else. We make sustainability part of every decision. We are committed to strict compliance and environmental standards.

**Entrepreneurial:** We focus on our customers, as individuals and as a company. We seize opportunities and think ahead. We take ownership and embrace personal accountability.

# **Goal Achievement in 2018**

We carry out our corporate purpose, "We create chemistry for a sustainable future," by pursuing ambi-tious goals along our entire value chain. In this way, we aim to achieve profitable growth and take on social and environmental responsibility. This also helps to achieve the United Nations' Sustainable Development Goals (SDGs). We are focusing on issues where we as a company can make a significant contribution, such as sustainable consumption and production, climate protection or fighting hunger.

#### Goal areas along the value chain

SUPPLIERS	BASF	CUSTOMERS
Procurement	Growth and profitability; employees; safety in produc- tion; product stewardship; energy and climate protection; water	Products and solutions

#### **Procurement**

	2020 goal	Status at end of 2018	SDGs
Assessment of sustainability performance of relevant suppliers; <sup>2</sup> development of action plans where improvement is necessary	70%	60%	SDG 8, 12, 16, 17

<sup>2</sup> Our suppliers are evaluated based on risk due to the size and scale of our supplier portfolio. We define relevant suppliers as Tier 1 suppliers showing an elevated sustainability risk potential as identified by our risk matrices and our purchasers' assessments. We also use further sources of information to identify relevant suppliers such as evaluations from Together for Sustainability (TfS), a joint initiative of chemical companies for sustainable supply

#### **Growth and profitability**

As determined in 2015, our aim was, on average, to grow sales slightly faster and EBITDA considerably faster than global chemical production (excluding pharmaceuticals; 2018: 2.7%; average change since 2015: 3.3%), and to earn a significant premium on our cost of capital. Another goal was to achieve a high level of free cash flow each year, either raising or at least maintaining the dividend at the prior-year level.

	2018	Change since 2017	Average change since 2015⁴
Sales <sup>3</sup>	€62.7 billion	2.4%	3.3%
EBITDA <sup>3</sup>	€9.2 billion	(14.9%)	3.8%
Dividends per share paid out	€3.10	€0.10	
Premium on cost of capital	€0.8 billion		
Free cash flow	€4.0 billion		

The average change was calculated using the changes in the non-adjusted figures from 2015 to 2017 and the change in the adjusted figures from 2018 to 2017. This gives an approximate average change on a comparable basis in each case. However, the figures do not take into account the structural decline in sales and EBITDA due to the classification of the oil and gas business as a discontinued operation.
 Baseline 2015: excluding the gas trading and storage business transferred to Gazprom

<sup>1</sup> Sustainable Development Goals (SDGs): SDG 1 – No poverty, SDG 2 – Zero hunger, SDG 3 – Good health and well-being, SDG 4 – Quality education, SDG 5 – Gender equality, SDG 6 – Clean water and sanitation, SDG 7 – Affordable and clean energy, SDG 8 – Decent work and economic growth, SDG 9 – Industry, innovation and infrastructure, SDG 10 – Reduced inequalities, SDG 11 – Sustainable cities and communities, SDG 12 – Responsible consumption and production, SDG 13 – Climate action, SDG 14 – Life below water, SDG 15 – Life on land, SDG 16 – Peace, justice and strong institutions, SDG 17 – Partnerships for the goals

#### **Employees**

	2021 goal	Status at end of 2018	SDGs
Proportion of women in leadership positions with disciplinary responsibility	22-24%	21.7%	SDG 5, 16
	Long-term goals		
International representation among senior executives <sup>5</sup>	Increase in proportion of non-German senior executives (baseline 2003: 30%)	40.4%	
Senior executives with international experience	Proportion of senior executives with international experience over 80%	85.4%	

<sup>5</sup> The term "senior executives" refers to leadership levels 1 to 4, whereby level 1 denotes the Board of Executive Directors. In addition, individual employees can attain senior executive status by virtue of special expertise.

## Safety in production

	2025 goal	Status at end of 2018	SDGs
Reduction of worldwide lost-time injury rate per 200,000 working hours	≤ 0.1	0.3	SDG 3, 8
Reduction of worldwide process safety incidents per 200,000 working hours	≤ 0.1	0.3	SDG 3, 12, 15
	Annual goal		
Health Performance Index	>0.9	0.96	SDG 3, 8

## Product stewardship

	2020 goal	Status at end of 2018	SDGs
Risk assessment of products that we sell in quantities of more than one metric ton per year worldwide	>99%	91%	SDG 3, 12

# Energy and climate protection

	2020 goal	Status at end of 2018	SDGs
Coverage of our primary energy demand by certified energy management systems (ISO 50001) at all relevant sites <sup>6</sup>	90%	73.0%	SDG 7, 12, 13, 14, 15
Reduction of greenhouse gas emissions per metric ton of sales product (excluding the oil and gas business, baseline 2002)	(40%)	(34.2%)	SDG 12, 13, 14, 15

<sup>6</sup> The selection of relevant sites is determined by the amount of primary energy used and local energy prices; figures relate to BASF operations including the discontinued oil and gas business.

## Water

	2025 goal	Status at end of 2018	SDGs
Introduction of sustainable water management at all production sites in water stress areas and at all Verbund sites (excluding the oil and gas business)	100%	50.0%	SDG 3, 6, 12, 14, 15

# Products and solutions

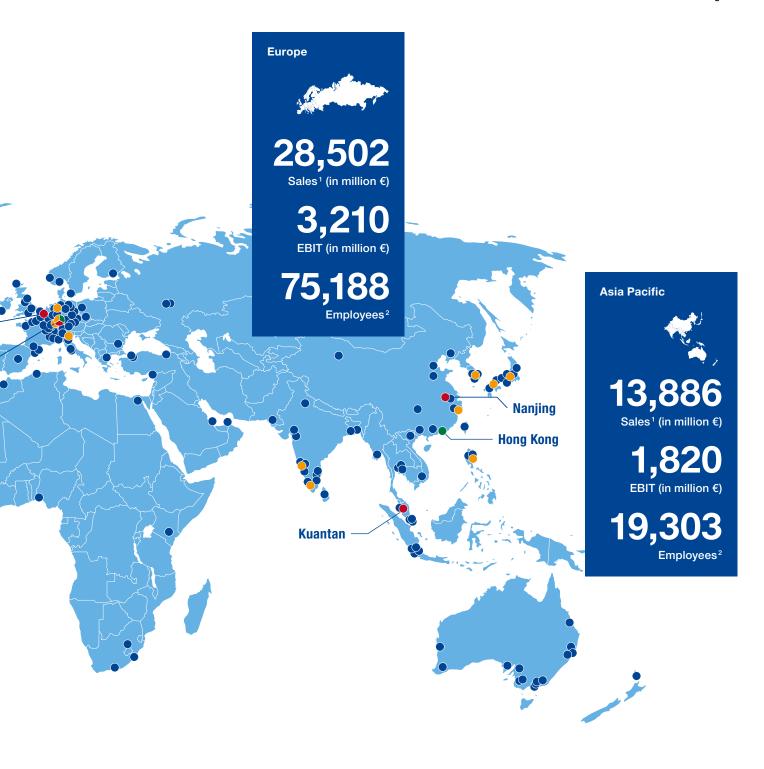
	2020 goal	Status at end of 2018	SDGs
Increase the proportion of sales generated by products that make a substantial contribution to sustainable development (Accelerator products)	28%	27.7%	SDG 3, 8, 9, 12, 13

# **BASF** in the regions

BASF Group sales 2018: €62,675 million; EBIT 2018: €6,033 million









**Verbund sites** 

Selected research and development sites

<sup>1</sup> In 2018, by location of company 2 At year-end 2018

# BASF on the Capital Market

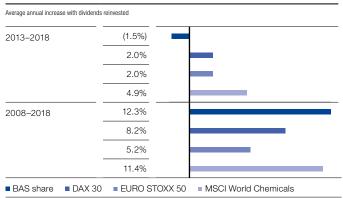
In 2018, the stock markets were characterized by long periods of uncertainty as a result of geopolitical tensions and trade conflicts, especially between the United States and China. The BASF share price declined considerably over the course of the year. We stand by our ambitious dividend policy and proposed a dividend of €3.20 per share at the Annual Shareholders' Meeting – an increase of 3.2% compared with the previous year.

#### **BASF** share performance

- BASF share declines 34.2% in 2018
- Long-term performance continues to clearly exceed benchmark indexes

The BASF share closed the 2018 stock market year with a closing price of €60.40, a decrease of 34.2% compared with the previous year's closing price. The considerable year-on-year decline in the BASF Group's earnings was primarily attributable to considerably lower earnings in the Chemicals segment, mainly as a result of lower margins for isocyanates and steam cracker products. The segment's earnings were also negatively impacted by the low water levels on the Rhine River in the second half of 2018. In addition, geopolitical tensions and trade conflicts, especially between the United States and China, led to a slowdown in economic growth over the course of the year particularly in Asia, and there mainly in China. The ensuing downturn in demand from significant customer industries, in particular the automotive industry, further weighed on BASF's share performance.

#### Long-term performance of BASF shares compared with indexes



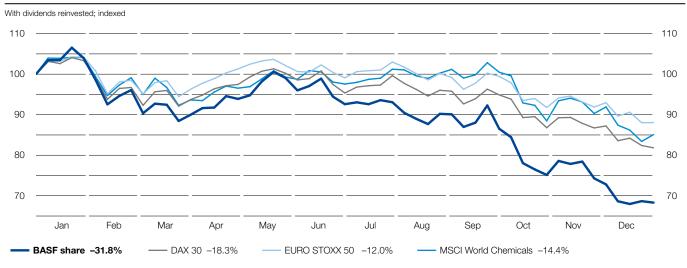
#### Weighting of BASF shares in important indexes as of December 31, 2018

DAX 30	6.3%
EURO STOXX 50	2.6%
MSCI World Chemicals	7.0%

Assuming that dividends were reinvested, BASF's share performance declined by 31.8% in 2018. The benchmark indexes of the German and European stock markets – the DAX 30 and the EURO STOXX 50 – lost 18.3% and 12.0% over the same period, respectively. The global industry index MSCI World Chemicals fell by 14.4%.

Viewed over a 10-year period, the long-term performance of BASF shares still clearly surpasses the German, European and global benchmark indexes. The assets of an investor who invested €1,000 in BASF shares at the end of 2008 and reinvested the dividends in additional BASF shares would have increased to €3,201 by the end of 2018. This represents an annual yield of 12.3%, placing BASF shares above the returns for the DAX 30 (8.2%), EURO STOXX 50 (5.2%) and MSCI World Chemicals (11.4%) indexes.

#### Change in value of an investment in BASF shares in 2018

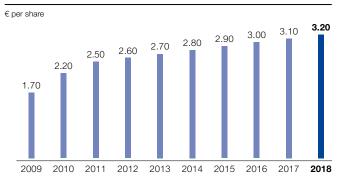


#### Dividend of €3.20 per share

At the Annual Shareholders' Meeting, the Board of Executive Directors and the Supervisory Board proposed a dividend payment of €3.20 per share. We stand by our ambitious dividend policy of increasing our dividend each year and plan to pay out €2.9 billion to our shareholders.

Based on the year-end share price for 2018, BASF shares offer a high dividend yield of around 5.3%. BASF is part of the DivDAX share index, which contains the 15 companies with the highest dividend yield in the DAX 30.

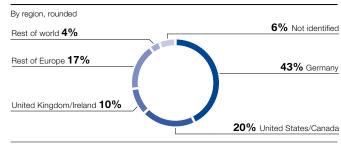
#### Dividend per share



#### Broad base of international shareholders

With over 600,000 shareholders, BASF is one of the largest publicly owned companies with a high free float. An analysis of the shareholder structure carried out at the end of 2018 showed that, at around 20% of share capital, the United States and Canada made up the largest regional group of institutional investors. Institutional investors from Germany accounted for around 13%. Shareholders from the United Kingdom and Ireland hold 10% of BASF shares, while investors from the rest of Europe hold a further 17% of capital. Approximately 30% of the company's share capital is held by private investors, nearly all of whom reside in Germany. BASF is therefore one of the DAX 30 companies with the largest percentage of private shareholders.

#### Shareholder structure



#### **Employees becoming shareholders**

In many countries, we offer share purchase programs that turn our employees into BASF shareholders. In 2018, for example, 25,000 employees (2017: 23,700) purchased employee shares worth €79 million (2017: €63 million).

# **BASF** in Asia Pacific

# At a glance

#### **Economy**

Sales by location of customer in the Asia Pacific region rose by 2% to €14,646 million in 2018 (2017: €14,343 million).

Sales at companies headquartered in the Asia Pacific region rose by 2% to € 13,886 million in 2018 (2017: € 13,658 million). In local currency terms, sales rose by 5% year on year. The positive development was mainly driven by the Functional Materials & Solutions segment. We also increased sales in the Agricultural Solutions segment.

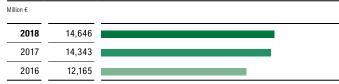
All segments increased volumes; Functional Materials & Solutions and Performance Products also achieved higher prices. By contrast, sales were consistently weighed down by currency effects. Portfolio measures had no effect on sales development in 2018. The trade conflict between the United States and China dampened economic sentiment across Asia, leading to lower prices and volumes year on year in the fourth quarter of 2018.

EBIT in the region decreased by 18% year on year to €1,820 million. This was primarily due to the lower contribution from the Chemicals segment as a result of narrower margins in the isocyanates business, as well as for steam cracker products at our joint venture. Lower fixed costs were unable to compensate for these effects.

As part of our regional strategy, we aim to further increase the proportion of sales from local production in Asia Pacific. We once again made progress toward this goal: For instance, we started commercial production of polyoxymethylene (POM) in Gimcheon, South Korea, in October 2018. We started production of citral, citronellol and menthol at our new aroma ingredients complex in Kuantan, Malaysia.

Our investments in production facilities as well as in research and development serve to bring products to market for our local and global customers in this fast-growing region. We therefore plan to build an integrated Verbund site in Zhanjiang in the southern Chinese province of Guangdong and expand our existing joint venture with Sinopec in Nanjing, China.

#### BASF sales in Asia Pacific (By location of customer)



#### BASF EBIT in Asia Pacific (By location of company)

lillion €		
2018	1,820	
2017	2,209	
2016	1,098	ı

#### **Environment**

From procurement at the supplier end, to production at production plants to the product delivery to the customers, we are committed to energy efficiency and global climate protection along the value chain, around the world and in Asia Pacific.

In India, BASF and the Navi Mumbai Municipal Corporation collaborated on an innovative safe water and sanitation project. A solar powered, cashless community water treatment plant, commonly referred to as a "water ATM", will dispense potable drinking water at just Rs. 8 (USD 0.11) per 20 liters when accessed with a debit card. Water is harvested from rain and other sources, and is purified with BASF's ultrafiltration solution. This innovative social business model offers clean and affordable drinking water to 10,000 people.

At production sites throughout Asia Pacific, we adopted various measures to reduce emissions along the value chain. These include efficient technologies for generating steam and electricity, energy-efficient production processes, and comprehensive energy management systems.

Our products make an important contribution toward helping our customers avoid emissions. In 2018, Nippon Paint launched an interior paint in China, Infinite Air, made with BASF dispersions derived from renewable resources. With the TÜV SÜD-certified biomass balance approach from BASF, fossil resources are replaced with renewable feedstock. The launch of this new paint helps save fossil resources and reduce greenhouse gas emissions while providing excellent product performance and minimizing odor.

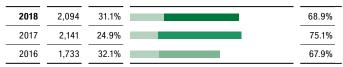
#### **Employees and society**

As of the end of 2018, BASF employed 19,303 people in the Asia Pacific region (2017: 18,256). Of these, 25.7% were female (2017: 25.9%). There were 2,094 new hires in the region in 2018, 31.1% of which were female (2017: 24.9% of 2,141).

## Number of employees (as of December 31)



#### Number of new hires1 (as of December 31)



■ Total ■ of which female

¹ Excluding employees of the businesses acquired from Bayer

Throughout the region, BASF developed customized campaigns and activities to support employee engagement, impactful leadership, and inclusion of diversity. These initiatives help to support and engage employees, fostering a safe, inclusive and inspiring working environment.

# **Innovation**

Innovation in chemistry enables economic, environmental, and social development, and thus plays a key role in meeting the needs of Asia Pacific's growing population in a period of rapid urbanization. BASF is committed to fostering innovation in this dynamic region by constantly enhancing its local research capabilities. In the future, around a quarter of BASF's global research and development (R&D) activities will be in Asia Pacific.

#### **Growing R&D capabilities in Asia Pacific**

- New Regional Automotive Application Center enables collaborative innovation with automotive customers
- New Process Catalysis R&D Center complements manufacturing capabilities

BASF has been continuously expanding its research and development footprints in Asia Pacific, to drive innovation by integrating customer and market needs at an early stage. With major R&D sites located in China, India, Japan and Korea, BASF had 1,285 (2017: 1,160) R&D employees in Asia Pacific by the end of 2018.

BASF operates two Innovation Campuses, in Shanghai, China, and Mumbai, India. This concept is unique to Asia Pacific and brings all parties, including R&D, business and production units, to a single integrated site. Each Innovation Campus is an integral part of BASF's global Know-How Verbund, and houses global, regional and local R&D projects. Innovation Campus Shanghai, located at BASF Shanghai Pudong Innovation Park in Shanghai, China, was inaugurated in 2012 and expanded in 2015 and 2019.

The Innovation Campus Shanghai is the global headquarters of Advanced Materials & Systems Research. It has a broad research portfolio in the areas of advanced materials, chemical process engineering and environmental catalysts. Combining technical development capabilities of the operating divisions, as well as industrial design expertise featured in the Creation Center, the Innovation Campus Shanghai serves the innovation demand of almost all major industries.

In 2019, BASF further enhanced its regional innovation capabilities with new facilities at the Innovation Campus Shanghai, to further strengthen collaboration with the automotive industry and to offer new process catalysts to the chemical industry. With an investment of approximately €34 million, the new 5,000-square-meter facilities include the Automotive Application Center and the Process Catalysis Research & Development (R&D) Center.



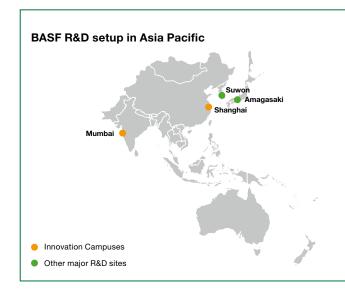
With an investment of approximately €34 million, the new 5,000-square-meter building includes the Automotive Application Center and the Process Catalysis Research & Development (R&D) Center.

The Innovation Campus Mumbai, with complementary research focusing on crop protection and specialty chemicals, is an important pillar of BASF's growing R&D network in Asia Pacific. It includes state-of-the-art laboratories for chemical synthesis, application and process development, as well as analytics. The Innovation Campus Mumbai brings all new and existing R&D activities in Mumbai under one roof, located next to the office buildings and production plants at BASF's Thane site in Navi Mumbai.

In 2018, the Innovation Campus Mumbai contributed to the successful launch of the new insecticide Sefina. The new insecticide from BASF helps farmers to protect crops (e.g. cotton) and increase yields. The pioneering solution is powered by BASF's new active ingredient, Inscalis®, the first of its kind from a novel chemical class, Pyropenes. Offering a new mode of action for the control of key insect pests, Sefina gives farmers a powerful new tool to combat resistance, as part of integrated pest management programs.



The BASF Automotive Application Center Asia Pacific can simulate nearly any situation on a customer's paint line.



#### Asia Pacific R&D sites

#### **Innovation Campus Shanghai**

 Focus: Advanced Materials, Process Engineering, Catalysts

#### **Innovation Campus Mumbai**

Focus: Crop Protection, Specialty Chemicals

#### R&D Center Amagasaki

■ Focus: Electronics, Battery Materials

#### R&D Center Suwon

■ Focus: Electronics

Across Asia Pacific, BASF R&D centers with specialized focus areas contribute to developing innovative solutions that address the region's challenges of resource efficiency, food and nutrition, and quality of life. BASF's R&D Center in Amagasaki, Japan, focuses on developing innovative materials to improve battery performance, while covering other R&D activities in electronics, plastic additives, packaging and adhesives. The company's R&D Center in Suwon, Korea, specializes in electronic materials development in close collaboration with major customers in Korea and across the region.



At the new Process Catalysis R&D Center, scientists develop new catalytic materials for both new and existing process catalysis applications.

#### Open innovation with academia and industry

## Network for Asian Open Research (NAO) expands topic scope with more partners

BASF places great value on open innovation through close collaboration with academic and industry partners around the world. It maintains a global network of partners from universities, institutes and companies, forming a key pillar of BASF's global Know-How Verbund. In Asia Pacific, the Network for Asian Open Research (NAO) has been a joint platform directed by BASF and leading universities and institutes in the region since 2014.

NAO has expanded to include a broader range of university partners and research areas in 2017. The network currently consists of 10 partners from China, Japan and Korea. Areas of collaboration have been extended to cover all technologies under BASF's three global technology platforms: Advanced Materials & Systems Research; Bioscience Research; and Process Research & Chemical Engineering.

Since its establishment, BASF and its partners have completed more than 29 joint research projects, with 11 postdoctoral students joining BASF after the projects' completion. Currently, NAO projects cover research areas including new monomers and polymers, surfaces and interfaces, zeolites, hybrid materials, coatings, as well as digitalization in R&D. For example, BASF is partnering with Sichuan University and is exploring improved solutions for important market needs like high chemical resistance of polyamide blends.

# Innovation in India

# Bringing reliability to customers through digitalization

#### Digitalization in chemical industry

In order to bring better reliability and predictability to supply chains BASF is adopting new digital tools which support end-to-end visibility for customers' shipments. Cloud based systems track a shipment and send proactive notifications to sales and customer care teams, which enable the user to check the current location of their shipment in real time at the touch of a button on their mobile phones or laptops.

According to initial surveys, this live tracking facility can reduce time spent on tracking shipments by up to 80%, allowing sales and customer care teams more freedom to focus on customer support. In addition, the system can also provide a uniform platform across plants to benchmark performance and identify bottlenecks. Incremental efficiency improvement activities including visual management of vehicles in a plant, or automation of tanker loading, can also be rolled out enabling efficiency in plant operations.



BASF is one of the forerunners in driving the digital transformation of the chemical industry.

#### Telemetry improves inventory visibility and management

#### Inventory visibility to supplier and customers

Monitoring stocks at customer premises is a challenge, and lack of visibility can create unnecessary delays. Now, telemetry devices on storage tanks at customer premises are allowing both BASF and its customers to derive real time updates on stock levels from storage tanks, and monitor daily consumption at customers' sites. This helps BASF plan production schedules at plants more efficiently, and reduce waiting time and detention charges for tankers. By observing consumption patterns, BASF is able to further increase or decrease production, avoiding the last-minute rush in booking or canceling a vehicle.

The cloud-based telemetry solution is device-friendly and provides ready access to the data for all relevant users. This initiative provides BASF customers, suppliers, and transportation providers with proactive information and makes business processes more straightforward.

Enhanced visibility to suppliers and customers through monitoring of stocks at customer premises with telemetry devices.



BASF launches a supply chain portal that helps reduce shipment tracking time while ensuring customers get real-time shipment updates.

# **BASF** in India

# At a glance

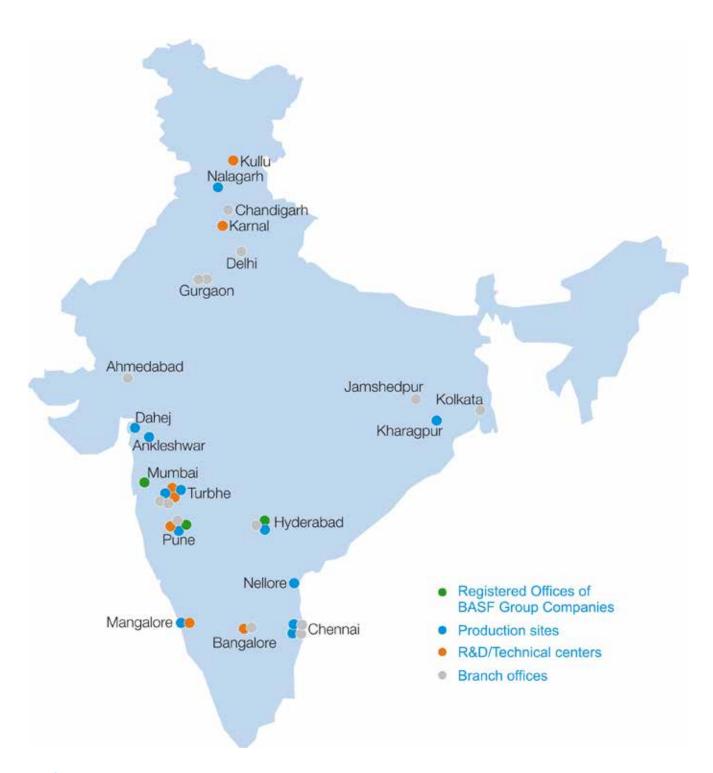
BASF has successfully partnered India's progress for more than 125 years, with BASF India Limited celebrating 75 years of incorporation in 2019. As of the end of 2018, BASF had 2,757 employees in India at 12 production sites and at 21 offices throughout the country. The Innovation Campus Mumbai and the Technical Support Center in Mangalore are both part of BASF's global technology platform. In 2018, BASF registered sales of approximately €1.4 billion to customers in India.

Today, BASF India Limited is a public limited company with 73.33% of its shares held by BASF SE. BASF Group companies operate key production sites at Dahej, Mangalore, Ankleshwar, Thane, Hyderabad and Chennai. In India, our portfolio is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. The Mangalore site is BASF's largest manufacturing site in South Asia (in terms of area). BASF SE holds 90% of BASF Catalysts India Pvt. Limited through its Group Companies. BASF also operates two research and development centers in India, in Mumbai and Mangalore, which are part of BASF's global technology platform

☐ Further information is available at www.basf.com/in.



BASF Mumbai Innovation Campus is awarded the Leadership in Energy & Environmental Design (LEED) Gold certification.



# **BASF** in India



Employees (as of December 31, 2018)

2,757

# **Major sites**

#### Bandra Kurla Complex office, Mumbai

Registered officeof BASF in India since December 1, 2017

#### Turbhe site, Navi Mumbai

- Engineering plastics, coolants, polyurethanes, textile & leather auxiliaries, care chemicals and construction chemicals
- Established in 1966

#### Mangalore site, Karnataka

- Dyes, polymer dispersions, coatings and construction chemicals
- BASF's largest manufacturing facility in South Asia (in terms of area)
- Houses coatings technical support lab that closely works with BASF's Global Technology Platform supporting local & global customers with technical and product development
- Established in 1996

#### Ankleshwar site, Gujarat

- Optical brightening agents, imaging and colorant chemicals
- Established in 1996 (part of BASF since the acquisition of Ciba and Diamond Dye Chem in 2010)

## Chennai site, Tamil Nadu

- BASF Catalysts India (Pvt) Limited
- Automotive catalysts
- Established in 2017

## Turbhe (Maharashtra), Nalagarh (Himachal Pradesh), Nellore (Andhra Pradesh and Kharagpur (West Bengal)

- Construction chemicals systems and formulations
- Construction Technology Center in Turbhe established in 2012, to support joint developmental activities with customers for new product applications and formulations
- Nellore site established in 2014, as the largest construction chemicals site of BASF in India

#### Pune & Chennai (Chemetall India Pvt. Ltd.)

- Industrial coatings, surface treatment solutions
- Pune plant established in 2001, and has expanded over the years
- Chennai plant established in 2012
- Part of BASF since the acquisition of Chemetall in 2017

#### Hyderabad site, Telangana

- Seed processing and quality testing facility for Nunhems
- One of the three seed processing facilities for Asia for Nunhems;
   seed quality lab authorized by NAKT (Naktuinbouw) Netherlands
- Established in 2002 (part of BASF since 2018)

#### Dahej site, Gujarat

- An integrated hub for polyurethanes manufacturing, also housing production facilities for care chemicals and polymer dispersions for the coatings and paper businesses
- Established in 2014

#### Agricultural Research Station Pune Site, Maharashtra

- Focuses on global agricultural research on herbicides, fungicides and insecticides
- Established in 2015

#### Innovation Campus, Navi Mumbai

- Inaugurated in 2017
- Marks BASF's largest research and development investment in South Asia
- Will ultimately employ up to 300 scientists
- Focus areas include crop protection and specialty chemicals as well as development activities in pharma ingredients, care chemicals, performance chemicals and dispersions & pigments
- Awarded Gold Leadership in Energy and Environmental Design (LEED®) certification

#### Bengalure R&D facility, Karnataka

- Houses state of the art R&D facility or NUNHEMS seed business
- Focus on vegetable seed business

# **BASF India in 2018**

In 2018, BASF continued to invest in India, ramping up production at its manufacturing facilities, offering new solutions to support the sustainability of multiple market segments, while reducing impact on the environment and the climate. Our commitment to sustainability gives us a strategic advantage over our competition and has gained recognition for the company from business and industry bodies.

#### **Business development**

BASF continued to offer a variety of innovative solutions to customers in India in 2018, that meet the needs of the nation's growing industries.

Agriculture is core to India's development. In 2018, BASF launched an upgraded version of our "Sanrakshan Kit", in the presence of Shri. Ashwani Kumar, Joint Secretary (Plant Protection), Department of Agriculture & Farmer's Welfare, Government of India. The Sanrakshan Kit is an affordable, high-quality set of personal protection equipment designed to encourage good agricultural practices and promote safety in the field. Our "Suraksha Hamesha" program was recognized at the global Agrow Awards in London as a model in product stewardship. As part of the global acquisition of selected assets from Bayer, the BASF Agricultural Solutions team in India successfully integrated Basta®, a non-selective herbicide, into its portfolio. Nunhems®, another business from acquired assets, was also integrated as BASF Vegetable Seeds.

BASF's New Business Development team worked together with the BASF Dispersions & Resins team to offer the innovative water-soluble product DS416 to effectively help control dust for longer periods. Compared to traditional dust control methods, which involve spraying water, its use dramatically reduces water requirements. Successive trials were conducted by the team at a prominent mining and ore handling site in Odisha. The product is fully commercialized to handle dust in mining and traditional construction related industries. In the automotive sector, BASF's Automotive Coatings Team collaborated with Honda Motorcycle & Scooters India, a leading twowheeler manufacturer, to replace the conventional two-coat metallic base coat with a single-coat metallic paint system, without compromising on the aesthetics and durability of the end quality of the paint system. The new system thus eliminates one paint station, which results in cost savings by reducing power consumption, manpower and material. Since the overall paint spray is reduced, emissions of volatile organic compounds are also reduced.

Our Care Chemicals business launched a first-hand demonstration of sulfate-free shampoo at a live lab, presented together with our distributors at the Cosmotech show in India. BASF is introducing an array of hair, body and skin care solutions that address the growing demands of Indian consumers for moisturization, anti-pollution, antiaging and skin brightening products. The team also extended its business and market development activities in locations including Ahmedabad, Mumbai, Jaipur, Vijaywada, Chennai, Cochin and Kanpur, targeting segments such as personal care, home care, agricul-

ture and textiles. The Care Chemicals team also introduced the use of digital platforms to reach out to small-scale detergent manufacturers.

To enhance market awareness about the Master Builders range of solutions, the Construction Chemicals team embarked on a unique initiative "Young Minds Initiative" to share the insights and know-how with young people. This initiative, which started in 2013 is now gaining momentum through interactive sessions at engineering colleges across India.

#### Environmental protection, health and safety

In 2018, with the successful inclusion of sites from Chemetall, we were able to increase the overall production volumes, in addition to increasing production efficiency at existing sites in India.

The growth in overall production volumes resulted in an increase in absolute emissions this year. Our total emissions to air slightly increased to 89,717 metric tons (2017: 89,198 metric tons) while the total emissions to water reduced to 45 metric tons (2017: 50 metric tons) in 2018. Various initiatives were adopted to reduce air emissions, including the increased use of bio boilers and renewable solar power sources. The volume of waste increased to 14,585 tons in 2018 (2017: 12,830 metric tons) due to high production levels. However, the total amount of recovered waste increased. This was mainly the result of the implementation of 3R (reduce, reuse and recycle) principle in the sites.

In 2018, total water used for production and cooling remained almost same through the 3R focused principle. In spite of increased water use due to higher levels of production in 2018, BASF reduced emissions of organic substances. This was achieved through the implementation of measures related to waste water treatment and optimization of effluent treatment plant processes at several sites. Overall, the total water consumption for production and cooling use slightly increased or remained on the same level.

Increased production also led to an increase in electricity consumption to 74,366 MWh in 2018 (2017: 71,152 MWh). Similarly, steam consumption increased to 112,369 metric tons in 2018 (2017: 106,496 metric tons).



BASF India receives the Excellence in Mangagement of Environment award from the Indian Chemical Council.

In 2018, we put additional emphasis on behaviour-based safety training for drivers. Our efforts have led to reduction in accidents by 50% in the second half of 2018 compared to the first half of 2018.

To promote health and safety at work, employees around India at both sites and offices received training on cardio-pulmonary resuscitation through our Global Health Compaign "Life.Saving.Heroes.". Additionally, we conducted medical, safety and fire drills at multiple sites and offices in the country. Our initiatives in environment, health and safety were recognized at the Indian Chemical Council (ICC) award for Excellence in Management of Environment in 2018.

#### **Employees and society**

Committed and qualified teams who engage actively with the community are key to contributing towards a sustainable future. We took further steps towards engaging and motivating our employee base in 2018 with a wide range of initiatives.

In 2018, we launched MentForMe, a tool that enables mentors and mentees to connect digitally. We successfully introduced a gamification platform to employees for their training and development. With the use of game-design elements and principles, employees can develop their problems-solving skills in business environments and processes. In addition, we provided various flexible compensation and benefit plans for employees to enhance BASF's compelling total offer with a wide range of elements suited to individual needs. In 2018, we increased the number of employees to 2,757 (2017: 2,313).

With our continued efforts on upskilling employees and being strategically aligned to the business priorities, various customer centricity workshops were conducted throughout the year by internally trained facilitators. The year saw continued leadership contribution and involvement to strategic topics like Talent Management, New Leader Program and Project Related Development. Special emphasis was laid on enhancing gender diversity through programs like Breaking Biases and others that encouraged hiring of women in strategic roles.

We also boosted employee morale with unique initiatives like Fun@ BASF and the Knowledge Series. In 2018, we invited two renowned speakers: Shalini Saraswathy, blade runner & marathoner; and Dr. Aashish Contractor, pioneer of cardiac rehabilitation in India. The two speakers interacted with employees to emphasize health and fitness. Our efforts to boost an inclusive workplace were recognized again by Avtar and Working Mothers in their "100 Best Companies for Women" in India 2018 with improved rankings.

At BASF, we aim to contribute positively to society and bring about sustainable change by leveraging available resources and existing networks. In India, we focus on supporting the United Nations Sustainability Goal #6 (clean water and sanitation) as well as #4 (education & skill development) through our programs on water sanitation and hygiene, so-called "WASH" programs, especially near our manufacturing sites in Dahej, Mangalore, Thane, Pune and Chennai. Working with local non-profit partners, we constructed a toilet block in a school at Dahej and a toilet in a school at Mangalore. Because

behavioral change programs are just as important in bringing about an end to open defecation as physical infrastructure, we also conducted a series of awareness programs on sanitation and use of toilets. Further, in line with providing safe drinking water to children, we also installed water filters in three schools.

To enhance employee participation and commitment to society in India, we launched our corporate volunteering program, Connected to Care, and inaugurated our social business, the BASF Landmark Project, in Mumbai. We also inaugurated two new water ATMs for local communities in Mangalore and Chennai, which offer affordable access to clean drinking water. To help needy communities, we collaborated with a local non-governmental organization, Goonj, with initiatives around Diwali, Corporate Volunteering Day and the Miles for Smiles campaign. More than 100 cartons of relief materials such as clothes, toys and books were delivered to Goonj through the Connected to Care program. Through the Miles for Smiles campaign, we donated and installed three water purifiers at local schools in Mangalore.

#### **Social Engagement**

At BASF, we aim to contribute positively to the society and bring about sustainable change by leveraging available resources and existing networks. Through our not-for-profit projects we made a conscious attempt to improve the quality of life of the communities around our sites. In 2018, we constructed a toilet block in a school at Dahej and a toilet in a school at Mangalore. Behavioural change programs are just as important as physical infrastructure to bring about an end to open defecation. Therefore, we also conducted a series of awareness programs on sanitation and use of toilets to bring about a change in entrenched behavior. Further, in line with providing safe drinking water to children, we also installed water filters in three schools.

To enhance employee participation and commitment to society in India, we launched our corporate volunteering program - Connected to Care and inaugurated our social business - Project Landmark in



Under our corporate volunteering program, the "Miles for Smiles" campaign was initiated to donate water purifiers to local schools in Mangalore.

Mumbai. We also inaugurated two new "Water ATMs" for the local communities in Mangalore and Chennai offering them affordable access to clean drinking water. We tied up with NGO Goonj to help the needy and poor through initiatives around Diwali, Corporate Volunteering Day and "Miles for Smiles" campaign across India. Over 100 cartons of relief materials (including clothes, toys and books) were delivered to Goonj through the Connected to Care program. Meanwhile through the Miles for Smiles campaign we donated and installed three water purifiers at local schools in Mangalore.

## **Project Pragati**

The Sustainable Castor Initiative - Pragati, a joint initiative established by BASF together with Arkema, Jayant Agro and Solidaridad, made further progress in 2018. BASF and partners took further steps in 2018 to expand project Pragati (Hindi for "progress"). This joint initiative, established by BASF together with Arkema, Jayant Agro and Solidaridad, aims to improve the economic situation of castor oil farmers and their workers in India. Smallholders are trained and audited based on a newly developed sustainability code. The goal is to optimize their yields, reduce the impact on the environment and be able to offer certified sustainable castor oil on the global market. Since the project was initiated, more than 2,700 smallholders and over 2,000 hectares of land have been certified for sustainable castor oil cultivation. The smallholders certified under the program have been able to increase their yields by 55% compared with the 2016 baseline. In 2018, the project was extended for another three years, from 2019 to 2022.

# In focus: BASF Landmark Project

An innovative social business model in Turbhe, Mumbai, has capacity to offer affordable drinking water to 10,000 people. BASF's ultrafiltration solution, and other purification processes at a "Water ATM," purify groundwater and rainwater. The BASF Landmark Project will also establish a sanitation facility and a social business producing and selling women's hygiene solutions, demonstrating a unique business model based on a public-private partnership.



Community members along with students from the Turbhe School No. 22 at the launch of the Water ATM in Navi Mumbai.

The world's poorest people often pay the most – in terms of affordability – for water. In Mumbai, clean drinking water can consume almost 15% of the income of low-income residents. A collaborative project initiated by BASF now offers purified drinking water to Turbhe Store residents at just Rs. 8 per 20 liters.

The BASF Landmark Project offers a solution for the provision of safe, affordable water and sanitation services to needy members of the community, with a business model that will sustain these services into the future.

A gap analysis and local survey conducted in the area identified water availability as a key challenge in the community, along with water borne diseases, leading to low productivity among the working class and absenteeism in schools. Accordingly, a BASF team, along with its implementation partner STEP (Sustainable Technosolutions for Environmental Protection), chose the Navi Mumbai Municipal Corporation (NMMC) school No. 22. in Turbhe Store, located close to BASF's site, to implement the first phase of the "Landmark Project" in close consultation with NMMC.

The first phase of the project can provide clean, affordable water to 10,000 Turbhe Store residents via a rainwater harvesting system accompanied by water ATMs – machines that dispense purified water using BASF's ultrafiltration membrane technology. BASF runs the project on land provided by NMMC at Bharat Ratna Dr. Babasaheb Ambedkar Vidyalaya School No. 22, Turbhe Store. WaterLife India has designed the solar-powered, cashless machines, while STEP is the

implementing partner for the project. Residents access the purified water with a debit card.

Uniquely, water for the project is harvested from rain and other sources, then purified with innovative ultrafiltration technologies, inge® from BASF. The provision for rain water harvesting ensures that there is no conflict for the water source. The project aims to make harvested rainwater a major provider of the raw water supply. Surface water is also provided for at the ATM as a back-up, in case the project is unable to harvest enough rainwater due to unpredictable weather conditions.

Unlike conventional projects in India which offer facilities for free, and can therefore become unsustainable, this model integrates a sustainable safe water supply, sanitation and hygiene. Through the BASF Landmark Project, safe drinking water and sanitation facilities will be provided at an affordable cost to a local slum area, ensuring sustainability of the project. Additionally, sanitation and hygiene awareness camps in schools, nearby residential areas and public health centers are conducted regularly to enhance awareness of the model and spread awareness about importance of clean water, sanitation and hygiene. BASF will run the system for two years and then hand it over to a local community-based organization.

As part of its corporate volunteering program, employees from BASF are now working in the community to create awareness about sanitation, importance of clean drinking water and general hygiene.

The second phase of the project will include refurbishment of NMMC toilets and setting up a unit for women's hygiene products near the toilets. In this phase of the project, the plan is to use innovative solutions from BASF's diverse portfolio such as construction chemicals, care chemicals and performance materials businesses. After two years, the project will be run by the community-based organizations. This unique model can be replicated anywhere in the world.

The concept for this project was first developed through a series of social dialog sessions in Mumbai during BASF's 150th anniversary activities in 2015 (under the Creator Space™ program), and has now become an innovative, community-based social business model.



Citizens from Turbhe Store can now access clean and affordable drinking water through the "Water ATM".

# Key data

		2018	2017	2016
Financial Results				
Sales by location of customer	Million €	1,376	1,326	1,098
Employees (as of December 31)				
Number of employees		2,757	2,313	2,356
BASF employee age structure	%			
Up to and including 25 years		4.2	5.0	6.1
Between 26 and 39 years		52.1	53.2	52.3
Between 40 and 54 years		38.6	36.9	36.8
55 years and older		5.1	4.9	4.8
Occupational Safety				
Lost-time injury rate (BASF employees, leased personnel and contractors)	Per 200,000 working hours <sup>1</sup>	0.23	0.08	0.09
Fatalities (total)		0	0	0
Environment				
Emissions to air				
Greenhouse gas emissions	Metric tons of CO <sub>2</sub> equivalents	89,575	89,055	84,515
Air pollutants (without CH <sub>4</sub> )	Metric tons	141	144	146
Water				
Emissions to water: Organic substances (CoD)	Metric tons	43	49	61
Emissions to water: Nitrogen	Metric tons	1.1	1.0	1.6
Emissions to water: Heavy metals	Metric tons	0.15	0.15	0.14
Water supply	Million cubic meters	1.0	1.0	0.98
Water used for production	Million cubic meters	0.64	0.62	0.67
Water used for cooling	Million cubic meters	44	43	42
Waste				
Waste (total amount)	Metric tons	14,585	12,830	13,208
Recycling and thermal recovery	%	51	48	50
Energy				
Electricity consumption	MWh	74,366	71,152	66,580
Steam consumption	Metric tons	112,369	106,496	96,857
Fuel consumption (Central powerplants and boilers)	MWh	92,520	94,593	92,855

<sup>1</sup> Hours worked by BASF employees, temporary employees and contractors. We previously reported on the number of lost-time injuries per one million working hours worldwide (BASF and temporary employees). The 2016 and 2017 figure have been adjusted based on 200,000 working hours.

# **Ten-Year-Summary**

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Million €	2009	2010	2011	2012 <sup>2</sup>	2013³	2014	2015	2016	2017	2018
Sales and earnings										
Sales	50,693	63,873	73,497	72,129	73,973	74,326	70,449	57,550	61,2231	62,675
Income from operations (EBIT)	3,677	7,761	8,586	6,742	7,160	7,626	6,248	6,275	7,5871	6,033
Income before income taxes	3,079	7,373	8,970	5,977	6,600	7,203	5,548	5,395	6,8821	5,288
Income after taxes from continuing operations		_	_	_	_		_	_	5,592	4,150
Income after taxes from discontinued operations				_	_		_	_	760	829
Income after taxes	1,655	5,074	6,603	5,067	5,113	5,492	4,301	4,255	6,352	4,979
Net income	1,410	4,557	6,188	4,819	4,792	5,155	3,987	4,056	6,078	4,707
Income from operations before depreciation and amortization (EBITDA)	7,388	11,131	11,993	10,009	10,432	11,043	10,649	10,526	10,7651	9,166
EBIT before special items	4,852	8,138	8,447	6,647	7,077	7,357	6,739	6,309	7,645¹	6,353
EBIT after cost of capital	(226)	3,500	2,551	1,164	1,768	1,368	194	1,136	2,9021	825
Capital expenditures, depreciation and amortization										
Additions to property, plant and equipment and intangible assets	5,972	5,304	3,646	5,263	7,726	7,285	6,013	7,258	4,364	10,735
of which property, plant and equipment	4,126	3,294	3,199	4,084	6,428	6,369	5,742	4,377	4,028	5,040
Depreciation and amortization of property, plant and equipment and intangible assets	3,711	3,370	3,407	3,267	3,272	3,417	4,401	4,251	4,202	3,750
of which property, plant and equipment	2,614	2,667	2,618	2,594	2,631	2,770	3,600	3,691	3,586	3,155
Number of employees										
At year-end	104,779	109,140	111,141	110,782	112,206	113,292	112,435	113,830	115,490	122,404
Annual average	103,612	104,043	110,403	109,969	111,844	112,644	113,249	111,975	114,333	118,371 ———
Personnel expenses	7,107	8,228	8,576	8,963	9,285	9,224	9,982	10,165	10,610	10,659
Research and development expenses	1,398	1,492	1,605	1,732	1,849	1,884	1,953	1,863	1,843¹	2,028
Key data										
Earnings per share	€ 1.54	4.96	6.74	5.25	5.22	5.61	4.34	4.42	6.62	5.12
Adjusted earnings per share	€ 3.01	5.73	6.26	5.64	5.31	5.44	5.00	4.83	6.44	5.87
Cash flows from operating activities	5,693	6,460	7,105	6,602	8,100	6,958	9,446	7,717	8,785	7,939
EBITDA margin	6 14.6	17.4	16.3	13.9	14.1	14.9	15.1	18.3	17.6¹	14.6
Return on assets	6 7.5	14.7	16.1	11.0	11.5	11.7	8.7	8.2	9.51	7.1
Return on equity after tax	6 8.9	24.6	27.5	19.9	19.2	19.7	14.4	13.3	18.9	14.1
Return on capital employed (ROCE) 9	6				_			_	15.4	11.4
Appropriation of profits				·						
Net income of BASF SE <sup>4</sup>	2,176	3,737	3,506	2,880	2,826	5,853	2,158	2,808	3,130	2,982
Dividend	1,561	2,021	2,296	2,388	2,480	2,572	2,664	2,755	2,847	2,939
Dividend per share	€ 1.70	2.20	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20
Number of shares as of December 31 million	n 918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5

<sup>1</sup> Figures for 2017 were restated with the presentation of the oil and gas activities as discontinued operations. For more information, see the Consolidated Financial Statements from page 200 onward.

2 We have applied International Reporting Standards IFRS 10 and 11 as well as International Accounting Standard 19 (revised) since January 1, 2013. Figures for 2012 have been restated; no restatement was made for 2011 and earlier.

3 Figures for 2013 have been adjusted to reflect the dissolution of the natural gas trading business disposal group.

4 Calculated in accordance with German GAAP

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